

List of Figures

Figure 1-1	Planning Area Chugach National Forest	1-2
Figure 2-1	Alternative development	2-3
Figure 2-2	Graphic summary of the range of alternatives, given as percent of total Forest acreage by prescription category.....	2-16
Figure 2-3	No Action Alternative area allocations, by category.....	2-18
Figure 2-4	Preferred Alternative area allocations, by category.....	2-19
Figure 2-5	Alternative A area allocations, by category.....	2-20
Figure 2-6	Alternative B area allocations, by category.....	2-21
Figure 2-7	Alternative C area allocations, by category.....	2-22
Figure 2-8	Alternative D area allocations, by category.....	2-23
Figure 2-9	Alternative E area allocations, by category.....	2-24
Figure 2-10	Alternative F area allocations, by category.....	2-25
Figure 2-11	Bioenvironmental classes of the Chugach National Forest with at least 12 percent of area in Category 1 or 2 prescriptions by alternative	2-27
Figure 2-12	Percent of Kenai portion of Chugach National Forest heavily infested by spruce bark beetle (mapped as infested for 3+ years) by prescription category and alternative	2-27
Figure 2-13	Percentage of coho and pink salmon habitat by prescription category.....	2-29
Figure 2-14	Potential stream class I, II, and III restoration miles	2-29
Figure 2-15	Forestwide distribution of ROS classes	2-35
Figure 2-16	Forestwide dispersed recreation capacity	2-36
Figure 2-17	Acres available for winter snowmachine activity - - Kenai Peninsula	2-37
Figure 2-18	Acres available for winter helicopter activities - - Kenai Peninsula.....	2-37
Figure 2-19	Recommended and existing Research Natural Areas by alternative (acres)	2-38
Figure 2-20	Recommended Wilderness by alternative (acres)	2-39
Figure 2-21	Percent of Forest roadless by alternative	2-40

Figure 3-1	Total short-term soil disturbance from recreation and timber roads and trails by geographic area.....	3-20
Figure 3-2	Total long-term soil disturbance from recreation and timber roads and trails by geographic area.....	3-21
Figure 3-3a	Ecological regions of the Chugach National Forest (CNF lands only).....	3-51
Figure 3-3b	Ecological sections of the Chugach National Forest (CNF lands only)	3-52
Figure 3-4a	Vascular plant species richness and community richness.....	3-55
Figure 3-4b	Vascular plant community richness by formation class (i.e., level 1 of Viereck et al. 1992), and community richness.....	3-55
Figure 3-4c	Vascular plant species richness by formation class and geographic area (i.e., Kenai Peninsula, Prince William Sound and Copper River Delta).....	3-56
Figure 3-5a	Area distribution of forested cover types on the Kenai Peninsula portion of the Chugach National Forest in the 1975 baseline and estimated for the years 1875, 2000, 2050, and 2100 using the Kenai Forest Succession Model	3-59
Figure 3-5b	Area distribution of tree age classes on the Kenai Peninsula portion of the Chugach National Forest in the 1975 baseline and estimated for the years 1875, 2000, 2050, and 2100 using the Kenai Forest Succession Model	3-60
Figure 3-6	Pollen percentages over approximately the last 2,500 years from sites at Tern Lake, Circle Lake and Hidden Lake.....	3-65
Figure 3-7a	Predicted changes in tree basal area in response to climatic change for a site in the Kenai Mountains at 300 meter elevation, on a westerly aspect with a slope of 25 percent.....	3-66
Figure 3-7b	Regional Landscape Area	3-79
Figure 3-8a	Proportion of land cover class by prescription category by alternative	3-83
Figure 3-8b	Proportions of vegetative cover types by prescription category, by alternative (does not include ANILCA additions).....	3-88

List of Figures

Figure 3-8c	Proportion of forest structural classes by alternative, all forest types (does not include ANILCA additions).....	3-89
Figure 3-9a	Bioenvironmental classes with at least 12 percent of area in Category 1 or 2 prescriptions by alternative	3-91
Figure 3-9b	Area of bioenvironmental classes with less than 12 percent of area in Category 1 or 2 prescriptions by alternative	3-92
Figure 3-10	Comparison of species richness for summer, migration, and winter by alternative	3-99
Figure 3-11	Percentage of coho and pink salmon habitat by prescription category	3-111
Figure 3-12	Percentage of watershed associations within Category 1 and 2 prescriptions	3-113
Figure 3-13	Percentage of watershed associations harvested under high market conditions	3-120
Figure 3-14	Estimated miles of class I, II, and III restoration by alternative	3-126
Figure 3-15a	Fire history of National Forest lands on the Kenai Peninsula from 1914 to 1997 as indicated by the number of fires and acres burned by decade	3-129
Figure 3-15b	Area by fuels model class on the Kenai Peninsula portion of the Chugach National Forest	3-132
Figure 3-16	Spruce bark beetle infestation acreage on the Kenai Peninsula portion of the Chugach National Forest for the years 1957, 1969, and 1976 through 1998	3-139
Figure 3-17a	Cumulative acres of proposed timber harvest and stand improvement - decade 1	3-143
Figure 3-17b	Cumulative acres of vegetation treated by fuels, wildlife, and forest restoration programs - decade 1	3-144
Figure 3-18	Acres of forested land on the Chugach National Forest in Category 1 prescriptions by alternative	3-147
Figure 3-19	Cumulative acres of treated and untreated forestland - decade 1	3-148
Figure 3-20	Cumulative acres of treated and untreated forestland - decade 5	3-149
Figure 3-21	Forested land distribution by geographic landscape (acres), Chugach National Forest	3-153

List of Figures

Figure 3-22	Structural stages of forested lands on Chugach National Forest.....	3-155
Figure 3-23	Percent of available timberlands by forest type and structural stage on the Chugach National Forest	3-155
Figure 3-24	Acres by structural stage for available timberlands on the Chugach National Forest	3-156
Figure 3-25	Forest density classes on the Chugach National Forest	3-157
Figure 3-26	Vegetation management on the Chugach National Forest by activity, 1974-1999	3-158
Figure 3-27	Distribution of potential <i>Aphragmus eschscholtzianus</i> habitat on the Chugach National Forest by prescription category and alternative	3-192
Figure 3-28	Distribution of potential <i>Arnica lessingii</i> spp. <i>norbergii</i> habitat on the Chugach National Forest by prescription category and alternative	3-193
Figure 3-29	Distribution of potential <i>Carex lenticularis</i> var. <i>dolia</i> habitat on the Chugach National Forest by prescription category and alternative	3-194
Figure 3-30	Distribution of potential <i>Draba kananaskis</i> habitat on the Chugach National Forest by prescription category and alternative	3-195
Figure 3-31	Distribution of potential <i>Isoetes truncata</i> habitat on the Chugach National Forest by prescription category and alternative	3-196
Figure 3-32	Distribution of potential <i>Ligusticum calderi</i> habitat on the Chugach National Forest by prescription category and alternative	3-197
Figure 3-33	Distribution of potential <i>Papaver alboroseum</i> habitat on the Chugach National Forest by prescription category and alternative	3-198
Figure 3-34	Distribution of potential <i>Puccinellia glabra</i> habitat on the Chugach National Forest by prescription category and alternative	3-199
Figure 3-35	Distribution of potential <i>Romanzoffia unalaschcensis</i> habitat on the Chugach National Forest by prescription category and alternative	3-200

Figure 3-36	Distribution of potential <i>Stellaria ruscifolia</i> ssp. <i>aleutica</i> habitat on the Chugach National Forest by prescription category and alternative	3-201
Figure 3-37	Distribution of potential black oystercatcher habitat on the Chugach National Forest by prescription category (21,500 acres)	3-234
Figure 3-38	Distribution of potential brown bear habitat on the Chugach National Forest by prescription category (1,828,190 acres)	3-237
Figure 3-39	Distribution of potential dusky Canada goose habitat on the Chugach National Forest by prescription category (541,750 acres)	3-238
Figure 3-40	Percent of prescription categories on the Kenai Peninsula that may affect moose winter habitat (482,100 acres)	3-240
Figure 3-41	Percent of prescription categories on the Copper River Delta that may affect moose winter habitat (256,860 acres)	3-241
Figure 3-42	Comparison of H.S.I. values when 3,300 acres per year of moose winter habitat are burned in the next 5 years and no management (natural succession).....	3-243
Figure 3-43	Comparison of H.S.I. values when 1,200 acres per year of moose winter habitat are burned in the next 5 years and no management (natural succession).....	3-243
Figure 3-44	Distribution of potential mountain goat habitat on the Chugach National Forest by prescription category (1,336,300 acres)	3-245
Figure 3-45a	Distribution of potential gray wolf habitat on the Chugach National Forest by prescription category (2,742,210 acres)	3-247
Figure 3-45b	Distribution of potential gray wolf habitat on the Copper River Delta by prescription category (783,740 acres).....	3-247
Figure 3-46	Distribution of potential lynx habitat on the Chugach National Forest by prescription category (2,665,700 acres).....	3-248
Figure 3-47	Distribution of potential marbled murrelet habitat on the Chugach National Forest by prescription category (1,455,520 acres)	3-250
Figure 3-48	Distribution of potential river otter habitat on the Chugach National Forest by prescription category (1,981,100 acres)	3-251

Figure 3-49	Distribution of potential Sitka black-tailed deer habitat on the Chugach National Forest by prescription category (1,239,620 acres)	3-253
Figure 3-50	Distribution of potential Townsend's warbler habitat on the Chugach National Forest by prescription category (734,280 acres)	3-254
Figure 3-51	Distribution of potential wolverine habitat on the Chugach National Forest by prescription category (3,153,870 acres)	3-255
Figure 3-52	Distribution of potential trumpeter swan habitat on the Chugach National Forest by prescription category (628,410 acres)	3-260
Figure 3-53	Kenai Peninsula geographic area.....	3-305
Figure 3-53a	Campground occupancy – Kenai Peninsula	3-307
Figure 3-53b	Cabin occupancy – Kenai Peninsula	3-308
Figure 3-53c	Inventoried ROS classes – Kenai Peninsula	3-309
Figure 3-53d	Recreation capacities of dispersed areas – Kenai Peninsula.....	3-309
Figure 3-54	Prince William Sound geographic area.....	3-311
Figure 3-54a	Cabin occupancy – Prince William Sound	3-314
Figure 3-54b	Inventoried ROS classes – Prince William Sound	3-315
Figure 3-54c	Recreation capacities of dispersed areas – Prince William Sound	3-315
Figure 3-55	Copper River Delta geographic area	3-317
Figure 3-55a	Cabin occupancy – Copper River Delta.....	3-319
Figure 3-55b	Inventoried ROS classes – Copper River Delta	3-320
Figure 3-55c	Recreation capacities of dispersed areas – Copper River Delta	3-320
Figure 3-56a	Numbers of U.S. adults participating in selected outdoor recreation activities in 1983, 1995, and 2000.....	3-325
Figure 3-56b	Median age of U.S. population from 1940 to 2050	3-327
Figure 3-56c	Percent change in U.S. adult participation in selected recreation activities, 1995 to 2010.....	3-328
Figure 3-57a	Participation rates by Alaskan adult population and U.S. adult population in outdoor recreation activities in 1995	3-329
Figure 3-57b	Number of Alaskan adults participating in outdoor recreation activities in 1995	3-330
Figure 3-57c	Alaska statewide outdoor recreation participation estimates, 2000-2020, using the 1995 NSRE database	3-331

List of Figures

Figure 3-57d	Increase in number of adult Alaskans participating in recreation activities, from 2000 to 2020.....	3-331
Figure 3-57e	Average number of times an Alaskan adult annually participates in recreation activities.....	3-333
Figure 3-57f	Projected increases in total times Alaskans participate in recreation activities, 2000 to 2020	3-334
Figure 3-58a	Total visitors entering Alaska during May through September, 1989 to 1999	3-335
Figure 3-58b	Rate of growth in total summer visitors to Alaska, 1989 to 1999	3-336
Figure 3-58c	Projections of participation by U.S. adults (excluding Alaskans) in wildlife-related recreation activities in Alaska	3-337
Figure 3-59a	Percentage participation in recreation activities on the Chugach National Forest, based on Recreation Survey '95.....	3-339
Figure 3-59b	Participation rates of visitors and residents in recreation activities on the Chugach National Forest, summer 1995	3-340
Figure 3-59c	Total visits to the Chugach National Forest to participate in recreation activities, based on 1998 INFRA data.....	3-342
Figure 3-60a	Primitive ROS by alternative – Kenai Peninsula.....	3-351
Figure 3-60b	Semi-primitive ROS by alternative – Kenai Peninsula.....	3-351
Figure 3-60c	Roaded ROS by alternative – Kenai Peninsula.....	3-352
Figure 3-60d	ROS settings by alternative – Kenai Peninsula.....	3-353
Figure 3-60e	Projected cabin capacity vs. projected cabin use – Kenai Peninsula.....	3-355
Figure 3-60f	Projected camping capacity vs. projected camping use – Kenai Peninsula	3-356
Figure 3-60g	Developed recreation capacity vs. projected use – Kenai Peninsula.....	3-357
Figure 3-60h	Dispersed recreation capacity – Kenai Peninsula.....	3-358
Figure 3-60i	Acres available for winter snowmachine activity – Kenai Peninsula.....	3-359
Figure 3-60j	Acres available for winter helicopter activities – Kenai Peninsula	3-360
Figure 3-61a	Primitive ROS by alternative – Prince William Sound.....	3-361

List of Figures

Figure 3-61b	Semi-primitive ROS by alternative – Prince William Sound.....	3-362
Figure 3-61c	Roaded ROS by alternative – Prince William Sound.....	3-362
Figure 3-61d	ROS setting by alternative – Prince William Sound	3-363
Figure 3-61e	Projected cabin capacity vs. projected cabin use – Prince William Sound.....	3-365
Figure 3-61f	Developed recreation capacity vs. projected use – Prince William Sound.....	3-366
Figure 3-61g	Dispersed recreation capacity – Prince William Sound.....	3-366
Figure 3-62a	Primitive ROS by alternative – Copper River Delta.....	3-368
Figure 3-62b	Semi-primitive ROS by alternative – Copper River Delta.....	3-368
Figure 3-62c	Roaded ROS by alternative – Copper River Delta	3-369
Figure 3-62d	ROS setting by alternative – Copper River Delta	3-370
Figure 3-62e	Projected cabin capacity vs. projected cabin use – Copper River Delta	3-372
Figure 3-62f	Projected camping capacity vs. projected camping use – Copper River Delta.....	3-372
Figure 3-62g	Developed recreation capacity vs. projected use – Copper River Delta	3-373
Figure 3-63	Dispersed recreation capacity – Copper River Delta.....	3-374
Figure 3-64	Subsistence use by six rural communities in or adjacent to the Chugach National Forest	3-381
Figure 3-65	Percentage use of wild resources by community	3-384
Figure 3-66	Location of the eight eligible RNAs, including the existing Green Island RNA within the Chugach National Forest.....	3-393
Figure 3-67	Bioenvironmental class representation within the eligible network of eight RNAs sorted by total area of each bioenvironmental class	3-394
Figure 3-68	Existing scenic integrity	3-421
Figure 3-69	Scenic attractiveness.....	3-423
Figure 3-70	Landscape visibility analysis by geographic area	3-425
Figure 3-71	Scenic classes.....	3-426
Figure 3-72	Mapped scenic integrity objectives by alternative	3-430

List of Figures

Figure 3-73	Inventoried Roadless Areas map.....	3-454
Figure 3-74	Historical timber harvest on the Chugach National Forest 1909-1999	3-469
Figure 3-75	Historical timber harvest on the Chugach National Forest, 1909-1999, by decade.....	3-470
Figure 3-76	Southcentral Alaska timber harvest by ownership, 1986-1996	3-473
Figure 3-77	Sawlog harvest volume	3-473
Figure 3-78	Utility harvest volume	3-473
Figure 3-79	Population growth, 1979-1997, indexed to 1979	3-511
Figure 3-80	Total employment trends, 1979-1997, indexed to 1979	3-512
Figure 3-81	Total personal income trends, 1979-1997, for the United States, Alaska, and Southcentral Alaska – in 1999 dollars, indexed to 1979	3-515
Figure 3-82	Indexed per capita income for the United States, Alaska, and Southcentral Alaska, 1979-1997 in 1999 dollars	3-516
Figure 3-83	Municipality of Anchorage employment by sector highlighting forest resource related sectors 1996.....	3-520
Figure 3-84	Kenai and Soldotna employment by sector highlighting forest resource related sectors, 1996	3-521
Figure 3-85	Other communities within or near the Chugach National Forest boundary employment by sector highlighting forest resource related sectors, 1996	3-522
Figure 3-85a	Real income in the commercial fishing sector, 1979-98.....	3-524
Figure 3-85b	Index of income in the visitor industry (adjusted for inflation), 1979-98	3-526
Figure 3-85c	Major components of visitor industry by share of total visitor industry income, 1998	3-527
Figure 3-86	Chugach National Forest total revenue in 1999 dollars, fiscal years 1980-1998	3-529
Figure 3-87	Preference for the amount of designated Wilderness.....	3-554
Figure 3-88	Preference for the amount of designated Wild and Scenic Rivers.....	3-555
Figure 3-89	Preference for the amount of timber harvest	3-556
Figure 3-90	Acceptable conditions for timber harvest.....	3-557
Figure 3-91	Preference for the amount of new roads	3-558
Figure 3-92	Acceptable purposes for road construction	3-559

List of Figures

Figure 3-93	Preference for open areas for snowmachine use.....	3-560
Figure 3-94	Preference for open areas for off highway vehicles.....	3-561
Figure 3-95	Preference for management response to the Whittier road	3-562
Figure B-1	Process for identification of lands suitable for timber production.....	B-11